

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0112950

Owner: ISP Chemco, Inc.
Address: 300 Celeware Avenue, Wilmington, DE 19801

Continuing Authority: Same as below
Address: Same as below

Facility Name: ISP Minerals, Inc.
Facility Address: #1 Hillcrest Drive, Annapolis, MO 63620

Legal Description: NE ¼, Sec. 22, T31N, R3E, Iron County
Latitude/Longitude: See page 2

Receiving Stream: Unnamed Tributary to Big Creek (U)
First Classified Stream and ID: Big Creek (P) (02916)
USGS Basin & Sub-watershed No.: (08020202-040003)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

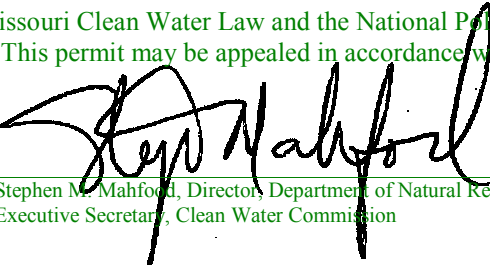
FACILITY DESCRIPTION:

See page 2

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

March 8, 2002
Effective Date

March 7, 2007
Expiration Date
MO 780-0041 (10-93)


Stephen M. Mahford, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

Interim Director of Staff, Clean Water Commission

FACILITY DESCRIPTION (continued)

Outfall #001 - Stone Crushing/Washing - SIC #3299/1423/1429/1499

Stormwater and process water runoff from quarry area and other plant areas. Flow is dependent on quarry stormwater pumping and other stormwater flow.

Design flow is 187,000 gallons per day.

Latitude/Longitude: +3721210/-09042010

Outfall #002 - Stone Crushing/Washing - SIC#3299/1423/1429/1499

Rock dike emergency overflow from process water settling pond, and quarry.

Latitude/Longitude: +3721240/-09041130

Instream monitoring points BC-1, BC-2, and BC-3.

Instream monitoring points chosen to monitor for total suspended solids before ISP's influence on Big Creek (BC-1), after the influence of the sewage lagoon (BC-2), and after the percolation of ISP's settling basin (BC-3). See attached map.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 6	
					PERMIT NUMBER MO-0112950	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 Rainfall	inches	*		*	once/day	24 hr. total
Flow	MGD	*		*	once/month	24 hr. estimate
Oil & Grease	mg/L	15		10	once/month	grab
Wet Weather Only Settleable Solids	ml/L/hr	1.5		1.0	once/month	grab
Dry Weather Only Total Suspended Solids	mg/L	80		60	once/month	grab
pH - Units	SU	**		**	once/month	grab
Outfall #002 - Emergency Discharge						
Total Suspended Solids	mg/L	*		*	once/event/day	grab
Settleable Solids	mL/L/hr	*		*	once/event/day	grab
Monitoring Points BC-1, BC-2 & BC-3 - As depicted in the map on page 6 of 6						
Total Suspended Solids	mg/L	*		*	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- *** Sample once per quarter in the months of March, June, September, and December.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

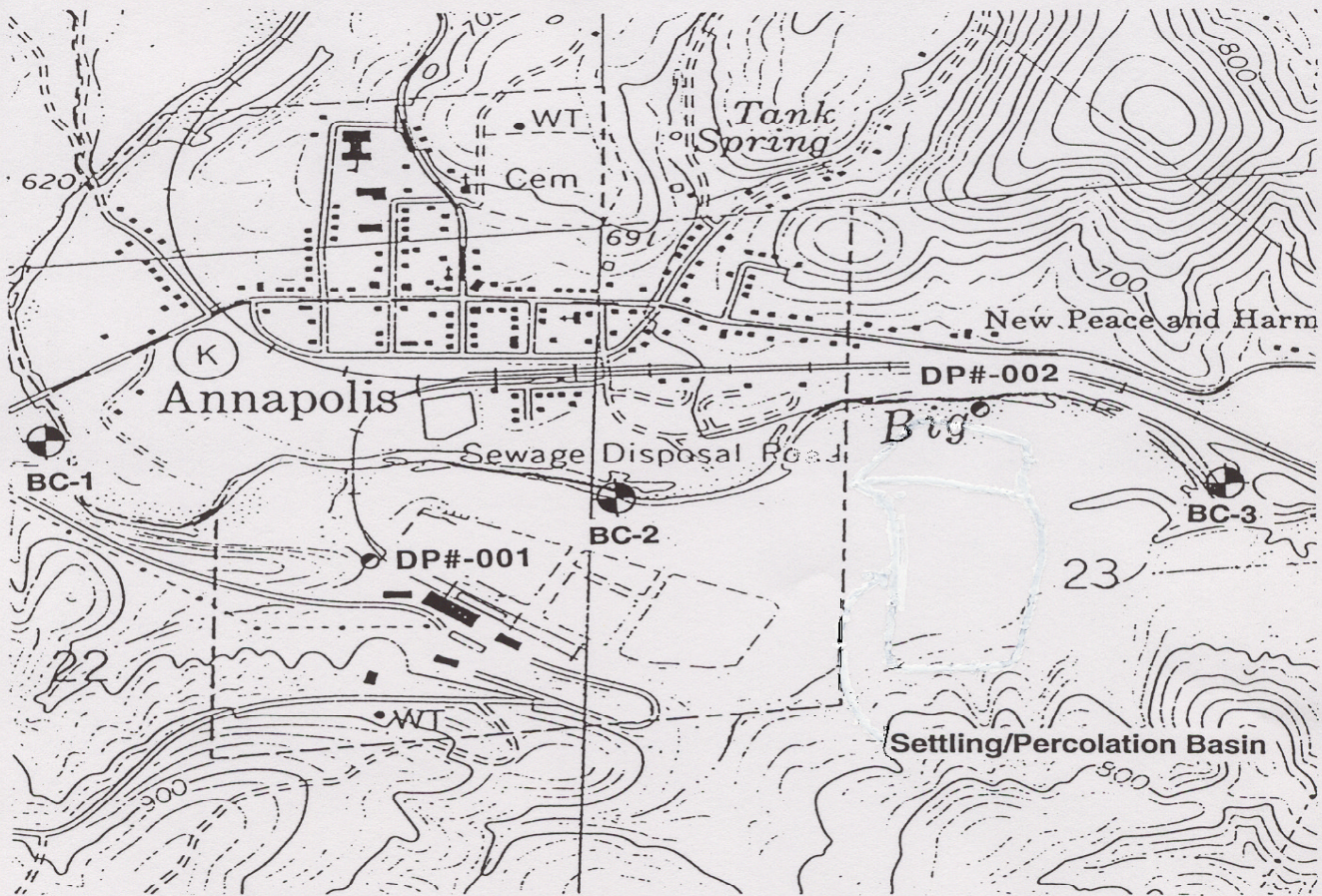
2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (continued)

6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.



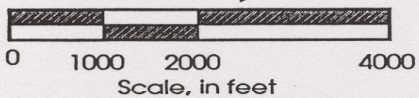
BC-1 = SW $\frac{1}{4}$ of NW $\frac{1}{4}$ of NE $\frac{1}{4}$, Township 31N, Range 3E, Section 22.
 BC-2 = NW $\frac{1}{4}$ of SW $\frac{1}{4}$ of NW $\frac{1}{4}$, Township 31N, Range 3E, Section 23.
 BC-3 = SW $\frac{1}{4}$ of SW $\frac{1}{4}$ of NE $\frac{1}{4}$, Township 31N, Range 3E, Section 23.

LEGEND

BC- Big Creek Sampling Location
 DP# Discharge Point-Surface Water Sampling Location



NORTH



NOTE: This plate was prepared from portions of an enlarged photocopy of a USGS 7.5 min. quadrangle "Des Arc, MO, photorevised 1980. Borings and other data are located approximately in this plate based on field measurements from site features.

SAMPLING PLAN
ISP MINERALS, INC.
BIG CREEK
ANNAPOLIS, MISSOURI

SHANNON & WILSON, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS